

# What knowledge and initiatives are applied by Danish employers when supporting employees with persistent post-concussion symptoms in returning to work and maintaining attachment to labour market?

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		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

Concussion is one of the most frequently used neurological diagnoses in the Danish healthcare system and constitute more than 90 % of all head traumas. It is estimated that approximately 25,000 patients yearly become diagnosed with concussion in Denmark but this is likely underestimated since some patients do not seek medical assistance after concussion.

Most patients experience spontaneous recovery within the first 2-3 weeks, but up to 40 % develop persistent post-concussion symptoms (PPCS) such as headache, dizziness, vision problems, sleep problems, fatigue, concentration and memory difficulties, emotional problems etc. lasting beyond the natural recovery period. While some recover during the first months, approximately 35 % will continue to have symptoms 3 to 6 months or more after the trauma, including post traumatic psychological reactions such as anxiety, stress and depression. The PPCS have a long lasting effect on labor market attachment and employees with PPCS may therefore need support to stay employed. A Danish study shows that 43 % of employees with PPCS lose their connection to the labour market 5 years after the trauma and that 19 % receive welfare payments indicating reduced working capability. Furthermore, 5 % end up leaving labor market altogether by receiving health-related early retirement pension.

The aim of this study is therefore to gather knowledge on which work-associated initiatives are presently used by Danish employers in order to support return to work of employees with PPCS. Secondly, we aim to map the needs of the employers regarding their knowledge about PPCS in order to provide support for successful work reintegration and work maintenances in employees PPCS.

The results from the survey will inform the content of an information folder targeting employers regarding how to create the best circumstances for employees with PPCS during the return-to-work process.

### Who can participate?

Employees aged 18 - 65 years with PPCS lasting more than 4 weeks, who have experienced return to work within the last 12 months. It is furthermore required that the participants have been gainfully employed under regular conditions at the moment of head trauma.

### What does the study involve?

The study is a national survey design where the participants and their employer complete the survey from home. The participants complete one survey (at the start of the study), and the employer completes two surveys: one about the return of the employee to the workplace some months after the employee has been enrolled in the study (1st follow-up) and one about maintaining the affiliation with the workplace 4 to 5 months after first follow-up (2nd follow-up).

### What are the possible benefits and risks of participating?

The participants will not experience a direct benefit from participating, but they will contribute to the improvement of conditions of future PPCS employees. There are no direct risks associated with study participation.

### Where is the study run from?

University of Copenhagen (Denmark)

### When is the study starting and how long is it expected to run for?

August 2021 to February 2023

### Who is funding the study?

Velliv Foreningen (Denmark)

### Who is the main contact?

Hana Mala Rytter, hana.mala@psy.ku.dk

## Contact information

### Type(s)

Principal investigator

### Contact name

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**Additional identifiers****Clinical Trials Information System (CTIS)**

Nil known

**Protocol serial number**

514-202-21-2000

**Study information****Scientific Title**

Return to work after concussion - A survey of employees with persistent post-concussion symptoms and their employers regarding the initiatives to support reintegration in the work environment

**Acronym**

ARCOMS

**Study objectives**

1. Employers feel they lack sufficient knowledge about persistent symptoms after concussion and are unsure about the initiatives that can support their employees with lasting post-concussion symptoms in returning to work.
2. The survey will show that in most cases only a few of the possible work related initiatives were applied
3. Smaller companies will offer less initiatives to their employees with persistent post-concussion symptoms compared with larger companies
4. Employees with higher education will be offered more work related initiatives to return to work after concussion
5. There is a moderate correlation between higher amount of work relates initiatives and attachment to the labor marked

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

Approved 17/08/2021, The Institutional Ethical Review Board, University of Copenhagen, Department of Psychology (ØSTER FARIMAGSGADE 2A, 1353 KØBENHAVN K, Copenhagen, Denmark; +45 35 32 49 25; jan.nielsen@psy.ku.dk), ref: IP-IRB/17082021

## **Study design**

Cross-sectional multicenter observational survey study

## **Primary study design**

Observational

## **Study type(s)**

Quality of life

## **Health condition(s) or problem(s) studied**

Concussion or minor traumatic brain injury

## **Interventions**

This will be a survey study of employees with persistent post-concussion symptoms and their employers. One survey will be conducted on the employees (at the start of the study) and two surveys will be conducted on their employers at approximately 5 months and 10 months after their employees were enrolled in the study.

The employee survey at baseline will collect information about symptom severity via The Rivermead Post-Concussion Symptom Questionnaire (RPQ), and data on work-related activities via the Work Productivity and Activity Impairment Questionnaire (WPAIQ)) and The Work Role Functioning Questionnaire v2.0 (WRFQ). The employee surveys will be used to inform the development of the employer surveys.

The first of the employer surveys will be about the return of the employee to the workplace ~5 months after the employee has been enrolled in the study (1st follow-up) and the second about maintaining the affiliation with the workplace 4 to 5 months after first follow-up (2nd follow-up). These surveys consist of several validated questionnaires and specific survey questions developed by the scientists and clinicians participating in the study.

## **Intervention Type**

Other

## **Primary outcome(s)**

Work-related initiatives (i.e. amount and type) that are applied across a variety of work places (i.e. public vs. private, small vs. large companies) in Denmark measured using employer surveys at 5 and 10 months

## **Key secondary outcome(s)**

Knowledge regarding the needs of the employers in order to support successful reintegration in the work place for employees with persistent post-concussion symptoms with the aim of ensuring long-term labor market attachment measured using employer surveys at 5 and 10 months

## **Completion date**

01/02/2023

## **Eligibility**

### **Key inclusion criteria**

**Employees:**

1. Between 18 and 65 years old
2. Suffering from persistent post-concussion symptoms diagnosed by a physician
3. Danish speaking
4. Being employed under regular terms prior to concussion or fully available and job seeking prior to concussion
5. Having experience with returning to work after their concussion within the last 12 months

**Employers:**

6. Danish or English speaking

**Participant type(s)**

Mixed

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

All

**Total final enrolment**

92

**Key exclusion criteria**

Does not meet inclusion criteria

**Date of first enrolment**

01/10/2021

**Date of final enrolment**

06/09/2022

## **Locations**

**Countries of recruitment**

Denmark

**Study participating centre**

**The Danish Concussion Center**

Amagerfælledvej 56A

Copenhagen

Denmark

2300

**Study participating centre**  
**Center for Hjerneskade**  
Amagerfælledvej 56A  
Copenhagen  
Denmark  
2300

**Study participating centre**  
**Kommunikationscentret Region Hovedstaden**  
Rygårds Alle 45  
Hellerup  
Denmark  
2900

**Study participating centre**  
**CSV Kolding**  
Skovvejen 1B  
Kolding  
Denmark  
6000

**Study participating centre**  
**CSV Vejle**  
Solsikkevej 6  
Vejle  
Denmark  
7100

**Study participating centre**  
**VISP Næstved**  
Birkebjerg Allé 3  
Næstved  
Denmark  
4700

**Study participating centre**  
**CfK Herning**  
Brahmsvej 8

Herning  
Denmark  
7400

**Study participating centre**

**CSU Slagelse**

Rosenkildevej 88 B  
Slagelse  
Denmark  
4200

**Study participating centre**

**Cervello AS**

Høstvej 3  
Kongens Lyngby  
Denmark  
2800

**Study participating centre**

**CKV Odense**

Heden 11  
Odense  
Denmark  
5000

## **Sponsor information**

**Organisation**

University of Copenhagen

**ROR**

<https://ror.org/035b05819>

**Organisation**

Danish Center for Concussion

## **Funder(s)**

**Funder type**

Charity

**Funder Name**

Vellivforeningen (Live well foundation)

## Results and Publications

**Individual participant data (IPD) sharing plan**

The data can be made available upon request to the main contact person (hana.mala@psy.ku.dk).

**IPD sharing plan summary**

Available on request

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Protocol file</a>			04/01/2023	No	No